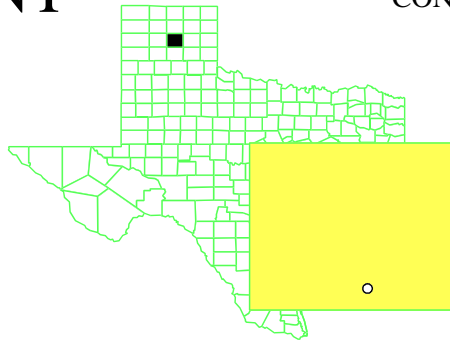


# PANTEX PLANT (USDOE)

## TEXAS

EPA ID# TX4890110527

Site ID: 0604060



EPA REGION 6  
CONGRESSIONAL DISTRICT 13  
Carson County

Updated: July 2004

## Site Description

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- Location: ● Pantex Plant (hereinafter “the Site”) is located 17 miles Northeast of Amarillo, Carson County, Texas.
- Population: ● Approximately 160,000 people reside in Amarillo.
- Setting: ● The area surrounding Pantex is primarily agricultural.  
● The facility occupies approximately 16,000 acres with approximately 10,000 of these acres owned by the U.S. Department of Energy (DOE) and 6,000 acres leased from Texas Tech University (TTU). The acreage leased from TTU serves as a buffer zone for site safety and security.  
● Currently, the main mission of the facility is the assembly, disassembly, and maintenance of nuclear weapons; interim plutonium pit storage; and the production of high explosives (HE) components.
- Hydrology: ● 36% of Amarillo's water supply is received from a well field 4 miles from the Site.  
● 20 domestic water wells are located within one mile of the site.  
● The Ogallala Aquifer at Pantex occurs at a depth that ranges from 390 to 480 feet below ground surface.  
● This aquifer serves as the primary source of domestic and municipal water supplies.  
● A perched aquifer, averaging about 10 to 30 feet thick, occurs at approximately 270 feet below ground surface.

## Wastes and Volumes

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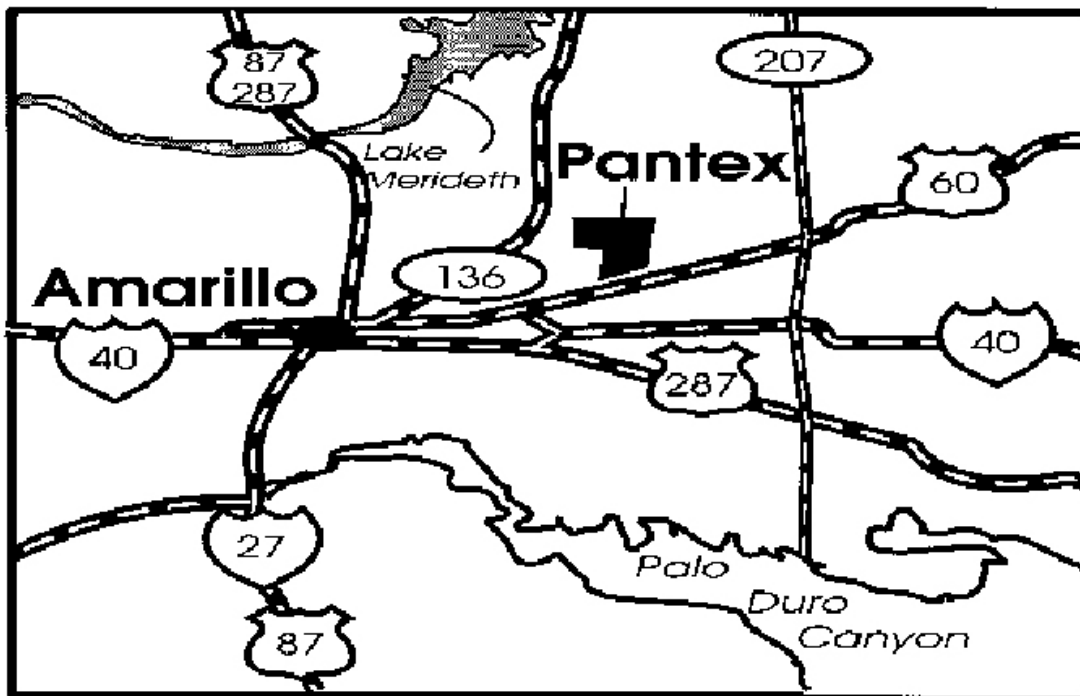
- The principal soil contaminants at Pantex are HE and heavy metals.
- Explosives, trichloroethylene (TCE) , 1,2-dichloroethane and chromium are present in the perched aquifer.
- TCE, toluene, and several heavy metals have been detected in the Ogallala Aquifer. In August, 2001, benzene was detected in off-site monitor wells for the first time.
- According to DOE, approximately 900 acres will have residual soil contamination at closure. The volume of impacted perched ground water requiring corrective action is estimated at 1.5 billion gallons.

### NPL LISTING HISTORY

Site HRS Score: 51.22  
Proposed Date: 7/29/91  
Final Date: 5/31/94  
NPL Update: No. 12

## Site Map and Diagram

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## The Remediation Process

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### Site History:

- Plant began in 1942 as an Army Ordnance Corps facility. The plant is now owned by the U.S. Department of Energy (DOE) and operated under contract by BWXT Pantex, L.L.C.
- DOE began nuclear operations in 1950. Current operations include fabrication of nuclear weapon ammunition and assembly, testing, and disassembly of nuclear weapons.
- Past waste practices included burning of chemical wastes in unlined pits, burial of wastes in unlined landfills, and discharging of plant waste water into unlined ditches and surface impoundments on-site.

#### Health Considerations:

- The ground water pumped from the Ogallala Aquifer provides drinking and irrigation water to the City of Amarillo and the surrounding area.
- Explosives; TCE; 1,2-dichloroethane; and chromium are present in the perched aquifer which is approximately 100 feet, on average, above the Ogallala Aquifer. TCE has recently been discovered in the Ogallala Aquifer at the Burning Grounds.
- Pumping of the city water wells has created a cone of depression, causing ground water in the Ogallala underlying Pantex to flow toward the city well field.

#### Other Environmental Risks:

- Surface water run-off from the facility is directed into on-site playas. All on-site playas are considered wetlands.
- Texas Tech University Agricultural Research Station uses surface water from Playa 4 for both irrigation of crops and watering livestock.

### Record of Decision

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No ROD Has Been Signed For The Pantex Plant  
Site As Of September 17, 2004.

### Community Involvement

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- Community involvement responsibilities for the Pantex Plant are the responsibility of the DOE.
- Residents are primarily concerned with the contamination of the Ogallala Aquifer, a drinking and irrigation water resource for the City of Amarillo.
- Site Repository: United States Environmental Protection Agency (EPA Region 6) Library, 1445 Ross Avenue, Suite 1200, Dallas, TX 75202-2733.

### Technical Assistance Grant

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- Availability Notice: N/A
- Letters of Intent (LOI)
  - 1) 6/1/99 - Serious Texans Against Nuclear Dumping (STAND)
  - 2) 6/25/99 - Amarillo Chamber of Commerce
  - 3) 6/25/99 - Amarillo Hispanic Chamber of Commerce
  - 4) 6/25/99 - Baptist St. Anthony's Health System
- LOI New Paper Notice: 6/16/99
- Grant Award: Awarded on 1/20/00 to STAND.  
7105 W. 34<sup>th</sup> Avenue, Suite E  
Amarillo, TX 79109
- Pamela S. Allison is the TAG Administrator

- Final TAG application for second grant received from STAND on February 6, 2003.
- 2<sup>nd</sup> TAG awarded May 2003 for \$100,000. Budget/project period: 5/12/03 - 4/12/06
- STAND selected 3 TAs.
- A compliance review will be conducted in mid-summer 2004.

## Contacts

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### U.S. Environmental Protection Agency

- **Remedial Project Manager:** Ms. Camille Hueni - (214) 665-2231\*.  
(Contact for Technical Questions)  
E-Mail Address - hueni.camille@epa.gov
- **Community Involvement Coordinator:** Duke Ducote (214) 665-6658\*  
(Contact for Community Relations Questions)  
E-Mail Address - ducote.duke@epa.gov
- **Attorney:** Mr. Michael Barra - (214) 665-2143\*.  
(Contact for Legal Questions)  
E-Mail Address - barra.michael@epa.gov
- **State Coordinator (EPA):** Ms. Karen Bond - (214) 665-6682\*.  
(Contact for State/EPA Agreements)  
E-Mail Address - bond.karen@epa.gov
- **Regional Public Liaison:** Mr. Arnold Ondarza - (303) 312-6777  
(Contact for Dispute Resolution)  
E-Mail Address - ondarza.arnold@epa.gov
- **\*Toll-Free Number:** 1-800-533-3508

### Texas Commission on Environmental Quality

- **Project Manager:** Mr. Robert Musick - (512) 239-2243

### U.S. Department of Energy

- **Facility Contact:** Mr. Johnnie Guelker - (806) 477-3183

## Enforcement

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- A Federal Facility Agreement has not been finalized for this Site.

## Present Status and Issues

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- The TCEQ is currently overseeing investigative work being conducted under the Resource Conservation and Recovery Act (RCRA) corrective action program. The EPA is also overseeing investigative work under Superfund authority.
- On August 4, 1998, the EPA received a petition from DOE requesting deletion of the Site from the National Priorities List (NPL) based on deferral to the TNRCC's RCRA program and "no further action" for Firing Site 5 (according to the DOE the only site of radiological concern), and other sites contained in fifteen Operable Units. Evaluation of the petition request will be contingent on EPA review and concurrence that no further action is necessary at those sites with potential radiological impacts. Those reviews are concurrent with ongoing reviews of RCRA Facility Investigations (RFI).

- A Soil Gas Survey, combined with a Partitioning Interwell Tracer Test (ITT), identified possible primary and secondary sources for the TCE contamination recently discovered in the Ogallala Aquifer at the Burning Grounds. The solvent evaporation pit, adjacent to Playa 3, was determined to be the primary source for the TCE contamination at this location, while the landfills appear as a secondary source for volatiles, specifically Toluene. As an interim corrective measure, DOE installed a Soil Vapor Extraction (SVE) system at the Burning Grounds to reduce the suspected source area. The SVE system became operational February 28, 2002, and is expected to minimize further impact to the Ogallala aquifer in this area.

## Benefits

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- Cleanup of the contamination from Pantex Plant will ensure the quality and safety of water used for agricultural purposes and drinking water for area residents depending on water wells located near the Site.